

This invention relates to methods and instruments for performing disc space preparation and implant insertion from a unilateral approach to the spine through a posterior lateral opening to the disc space. The instruments include spreaders, distractors, reamers, scrapers, cutters, chisels, pushers and implant inserters. A surgical procedure is provided that allows bilateral support of the adjacent vertebrae with at least one interbody fusion device inserted into the disc space via a unilateral approach. Implants for insertion into the disc space are also provided.